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MOBILE BANKING: A TOOL FOR FINANCIAL INCLUSION

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ABSTRACT

Mobile banking involves provision of financial services through the medium of mobile phones. It assumed significance as a major tool for promoting financial inclusion. This is especially so in developing countries which were characterized by inadequate banking system, large unbanked population, cash based transactions, dependence on informal means for transferring funds. Mobile banking came to be viewed as an alternative to cash and traditional paper based system of banking as the number of mobile subscribers was more than bank account holders. Mobile technology is used to provide financial access to unbanked population thereby enabling them to undertake financial transactions with greater convenience and without any additional cost. Several countries especially in the Sub Saharan African region have adopted it with varying degrees of success and achieved financial inclusion to some extent. The present study explores the models adopted for mobile banking in Indian context, its potentiality in achieving financial inclusion, progress achieved so far and suggestions for addressing the weaknesses.

KEYWORDS: Financial Inclusion, Mobile Technology, Business Correspondents, Bank Led Model & Jan DhanYojana

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INTRODUCTION

Mobile banking involves providing banking and financial services through the medium of mobile phones. As mobile phone is ubiquitous and is used as a means of communication in almost all parts of the country, it is being viewed as a means for providing banking services to those living in unbanked areas.

Definition as per RBI Guidelines, 2008:

"Mobile banking is defined as undertaking banking transactions using mobile phone by bank customers that would involve credit / debits to their accounts".

Thus, the use of mobile phones for the conduct of banking transactions is referred to as mobile banking. Banks offer a bouquet of financial services through the use of mobile technology. These are:

- Bank account related activities like funds transfer, bill payment, balance enquiry, cheque book request, opening of fixed or recurring deposit.
- Additional services such as demat account facility, loan, mobile recharge, payment for services such as movie or bus ticket or air ticket.
- Mobile payment or wallet services through tie ups with service providers.
- Account opening, cash deposit or withdrawal through intermediaries such as Business Correspondents (BCs) who are connected to the Core Banking Solutions (CBS) platform of the banks.

Mobile banking technology is available on all types of phones and not restricted to smart phones. The extent of services provided however, depends upon the type of hand set with the customer and the channel adopted by banks.

To access mobile banking, customer needs to register his mobile number with a bank, obtain mobile personal identification (MPIN) and mobile money identifier (MMID) from the bank. Funds can be transferred by customer to a beneficiary where both of them have bank accounts in the same bank or in different banks. It is also possible to transfer funds from the bank account of a customer to a beneficiary not having a bank account. This greatly benefits urban poor and migrants who frequently have to transfer funds to their families residing in villages.

OBJECTIVES

- To study the models adopted for mobile banking in Indian context.
- To examine its appropriateness for financial inclusion.
- To study the progress achieved in financial inclusion through mobile banking.
- To suggest measures for improvement.

MODELS OF MOBILE BANKING

Various countries have adopted either a bank led model or non-bank model for mobile banking. In bank led model, financial services are provided by the banks in collaboration with technology service providers. In non-bank model, non-bank entities such as mobile service operators facilitate payments and remittances but do not provide banking services such as savings and credit.

In India, the regulators adopted a bank led model as banks are considered to be better placed to provide a bouquet of financial services through mobile technology. Bank led model would also be more regulated to ensure customer protection, adoption of Know Your Customer norms and prevent money laundering. RBI issued first guidelines on mobile banking in 2008 subsequently amended in 2009 and 2011. As per these guidelines, banks were required to seek one time approval for offering mobile banking services. They are to work in collaboration with technology service providers for the required technology to reach customers.

RBI also established Interbank Mobile Payment System (IMPS) to facilitate instant transfer of funds across banks and provide for centralized interbank settlement through National Payment Corporation of India (NPCI).The NPCI offers mobile banking services through a common USSD short code*99#. Through this, mobile banking service is available on any phone/handset and can be used by customers, merchants, agents in performing mobile banking operations without any need for downloading any application[1].RBI granted approval to 80 banks of which 63 commenced mobile banking operations. Around 30 million customers subscribed to mobile banking operations as of October 2013.

Bank led Model for providing mobile banking services has two components. These are:

- Self-initiated Transactions
- Assisted Transactions

[1]RBI.(2014). *Report of the Technical Committee on Mobile Banking*. RBI, February 7, 2014.

Self-initiated transactions model is made available to existing customers as an additional channel of communication with banks apart from traditional banking channels. Banking transactions such as remittances, payment for purchase of goods and services, recharge, etc., are made available to the customer through access mechanisms such as Short Messaging Service (SMS), Unstructured Supplementary Service Data (USSD), Interactive Voice Response (IVR) or internet. In addition to banking services, several non-banking services such as mobile wallets are also provided through mobile platform vendors. Customers using self-initiated transactions model are usually urban based, in possession of smart phones which enables them to carryon varied banking activities. Mobile banking provides them a convenient, any time access to bank services thereby eliminating the need for visiting bank branches.

Assisted transactions model involves providing basic bank services through the medium of Business Correspondents such as account opening, cash depositing and withdrawal facilities. Other services such as money remittance, recharges are done by the customer himself through his mobile phone. The customers are usually unbanked, illiterate, living in rural and remote areas where banking facilities are scarce. For cash deposit and withdrawal, customer needs to approach the nearest BC, provide identification through PIN or biometrics, which is verified by the BC before executing the transaction through the medium of mobile phones. Customer receives confirmation of completion of transaction either through SMS or receipt. This model is being promoted as a major tool for reaching the unbanked, underbanked segments of population by the regulators.

A TOOL FOR FINANCIAL INCLUSION

Financial inclusion is the process of providing access of financial services to vast sections of poor and marginalized segments of population. Access to finance is considered to be a prerequisite for poverty alleviation, reducing income inequalities, social empowerment, prevents exploitation by money lenders. Government has taken several steps such as opening no-frill bank accounts with nil or minimum balance, relaxing Know Your Customer norms for ease of opening of bank accounts, appointing Business Correspondent/Business Facilitator to act as intermediaries for delivery of banking services. But India has a long way to go in achieving full financial inclusion. The all India CRISIL index score of financial inclusion for the year 2011 is 40.1 on a scale of 100[2]. Around 41.3% of the population is still outside the ambit offormal financial institutions and most of them residing in villages. As per census 2011, only 54.4% of rural households have access to banking services[3].

Thus, vast sections of population live in remote and geographically dispersed areas where the availability of banking facilities is limited. Banks are not finding it to be a cost effective option to open and operate branches in remote locations given that the size of transactions are small and infrequent. Target customer also finds it inconvenient to visit bank branches during its fixed timings involving travelling over a long distance and possible loss of their day’s wages. Their income levels are low and cash flow pattern is infrequent making it unviable to use regular bank products. Due to these supply and demand side constraints, there is a need to explore alternative ways of providing banking services to the unbanked. Mobile banking is expected to play a significant role in bridging the demand and supply constraints and in promoting financial inclusion. It assumed significance on account of the following factors:

[2]CRISIL (2015).*An Index to measure India’s Progress on Financial Inclusion*.CRISIL Inclusix.Vol. iii, June 2015.
[3]RBI.(2014). *Report of the Technical Committee on Mobile Banking*. RBI, February 7, 2014.

- Low access to banking facilities: Out of the 600,000 villages in India, only 183,000 are covered through formal banking as of March 2014. 40% of the population does not have access to formal banking services.
- Inadequate Banking infrastructure: The number of branches of Scheduled Commercial Banks (SCBs) increased from 90,896 as on 31.03.2011 to 125,857 as on 31.03.2015 while the number of ATMs increased from 75,645 to 1,84,221 during the same period. However, in spite of such expansion, banking facilities were considered inadequate as there were only 7.8 bank branches per 100,000 of population in rural and semi-urban areas and 18.7 bank branches per 100,000 of population in urban and metropolitan areas as of June, 2015.
- Ubiquity of mobile phones: There were about 103.43 crore mobile connections in the country of which 44.78 crore were in rural areas as on 31.04.2016. It suggests that mobile telephony can be potentially leveraged to achieve the goal of financial inclusion[4].
- Increase in mobile banking registrations: People applying for mobile banking registration increased from about 5% of banked population in the year 2000 to about 20% in 2012. This could be on account of the fact that an increasing number of banks are offering mobile banking solutions to their customers.
- Increase in mobile banking penetration: Mobile phone penetration is about 70% across India and 40% in rural areas. While only about 23% of villages in the country have bank branches, about 38% of villages have access to mobile phone technology. In addition, 42% of households without bank accounts have a mobile phone connection.
- JAM trinity: To transfer social security benefits, the Government of India envisaged Jan Dhan - Aadhar - Mobile (JAM) trinity. Under this, no frills bank account is opened using bio metric identification embedded in Aadhar card and connected to mobile number of the customer for easy operability with an aim to better target and transfer financial resources to the poor. This is expected to further promote financial inclusion.
- Low cost of providing banking services: The cost of providing banking services through a mobile phone is much cheaper compared to bank branches or ATMs. The cost of mobile banking per transaction ranges from Rs. 1 to Rs. 1.50. It is far below the transaction cost of Rs. 45 to Rs. 67.50 at a branch or Rs. 15 to Rs. 20 at an ATM, and Rs. 3 for internet banking. Hence, banks would be in a position to service large number of small value transactions at low cost. Banks need not invest in physical space and human resources. The cost of the mobile network is borne by the Mobile network operators. The only cost to the bank is the cost of setting up the system and managing it.[5]

As a result of all these factors, mobile banking has the potential to bring about Financial Inclusion in India.

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[4]TRAI.(2016). *Consultation Paper on the review of regulatory framework for the use of USSD for mobile financial services*. TRAI, New Delhi, August 2nd, 2016.

[5]M/s. Indev Advisors.(2014). *Mobile Banking by Business Correspondents in India – A Landscape study*.GIZ NABARD Rural Financial Inclusion Programme. New Delhi. October 2014.

MOBILE BANKING – TRENDS

Table 1: Trends in Mobile Banking

Year	No of Users (Million)	Volume (Million)	Value (Rs. Billion)
2010-11	5.96	6.85	6.14
2011-12	12.96	25.56	18.21
2012-13	22.51	53.30	59.9
2013-14	Not available	95	60
2014-15	Not available	171	1 Trillion

Source: Mobile banking – Report of the Technical Committee, RBI 2014, RBI Annual Reports.

During the year 2010-11 to 2011-12, the number of mobile banking customers increased by 117.45%, volume of transactions by 273.139% and value of transactions by 196.58%. For the year 2011-12 to 2012-13, the number of users increased by 73.69%, volume by 108.53% and value by 228.94%. Between the years 2013-14 and 2014-15, the value of transactions increased substantially from around rupees 60 billion and 1 trillion rupees. Table 1 provides trends in mobile banking during the period 2010-11 to 2014-15.

As per the mobile transaction data released by RBI, top five banks account for 92% of the value of mobile banking transactions in the country. These banks are SBI (36%), ICICI (21.5%), HDFC (17.8%), Axis (12.8%) and Kotak Mahindra (4.7% market share)[6]. This implies that though as many as 63 banks are offering mobile banking services, they are not promoting it aggressively. While mobile subscribers were around 350 to 550 million in 2013, the mobile banking customers were only 22 million indicating a very low customer base[7].

The Indian mobile banking sector is still in its nascent stage. Though high growth rates were observed in terms of the number of mobile banking customers, volume and value of transactions, it is still quite low compared to the number of mobile subscribers. Very few banks were making serious efforts to promote it.

EVALUATION AND SUGGESTIONS

Mobile banking is highly regulated as it is bank led and being promoted as a part of branchless banking strategy by banks. The rationale for its use is low bank penetration in rural areas, low cost of operations and increasing access to mobile phones. Inspite of its potential in promoting financial inclusion and provide banking access to the unbanked, its usage is very low. For effective mobile banking following measures are recommended:

- Though Mobile phone is ubiquitous as most people already have a mobile phone, banks must adopt mobile banking mechanism which is easily accessible and user friendly as the target customers in rural areas are illiterate. Banks should be properly incentivized to take mobile banking forward.
- The option of providing banking facilities through the intermediation of Business Correspondents appears to be the most viable option as majority of the target customers might not be comfortable with using technology for banking purposes. Hence, BC must be given adequate training on the ways of handling mobile technology and in resolving any problems which customer might face. BC should act as an effective interface between banks and its customers.

[6] Mayur Shetty (2016, March 22). Top five Banks generate 92% of mobile banking value. *The Economic Times*, March 22, 2016.

[7]RBI.(2014). *Report of the Technical Committee on Mobile Banking*. RBI, February 7, 2014.

- An analysis of the type of mobile banking transactions reveals that about 90% of all mobile banking transactions in India are for making bill payments and mobile top-ups. The remaining 10% are for inter-bank and intra-bank fund transfers. This implies that direct banking products such as fund transfers, withdrawals, deposits, etc. form only a small part of this segment[8]. A typical consumer continues to go to an ATM or a bank branch to conduct core banking transactions. A shift in transactions to core banking products is, therefore, necessary to ensure that the benefits of huge user base and low cost of servicing transactions is made available to the banking sector.
- As most of the target customers are first time bank users, they should be made aware of the uses and benefits of mobile banking. Awareness camps should be conducted whereby hands on training should be provided. Concerns relating to security of the operations should be addressed.
- Reluctance to use technology in banking activities should be overcome through proper propaganda by the banks popularizing this mode of banking.
- Bank staff must be made familiar with all aspects of mobile banking. They should be trained on technology aspects as well as customer orientation aspects through training sessions organized by RBI or TRAI.
- Mobile banking application must be continually upgraded so as to be compatible with any handset using any operating system.

CONCLUSIONS

Mobile banking has a huge potential for providing banking facilities to the unbanked and become an effective tool for financial inclusion. Customers can use common USSD gateway to perform operations such as generating the M-PIN, person to person funds transfer, merchant payments, balance enquiry, bill payment, viewing bank statement, requesting chequebook, etc. However, mobile banking has a low user base considering the huge number of mobile subscribers. Though the number and value of transactions using mobile application has shown an increasing trend, it is still very low. Very few banks have actively promoted mobile banking operations. Customer awareness also appears to be low as it is being used mainly for nonbank operations. To overcome these, it is necessary to create awareness among bank staff and customers, address security issues, continuously upgrade the application so that it can be used on any handset effectively.

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